

REMARKS

Applicants, by the amendments presented above, have made a concerted effort to present claims which more clearly define over the prior art of record, and thus to place this case in condition for allowance.

5 Currently, claims 1, 2, 4-6, 8 and 10-24 are pending. Claims 3, 7 and 9 were cancelled without prejudice in this Amendment.

Claim Rejections - 35 U.S.C. §102(b)

10 Claims 1-5, 7-20, 23 and 24 were rejected under 35 U.S.C. §102(b) as allegedly being clearly anticipated by WO 96/24060, EP 0596867 or United States Patent No. 5,354,692 to Yang. Claim 18 was cancelled without prejudice in the Preliminary Amendment. Reconsideration and allowance of the claims is requested.

15 Claim 1 has been amended to incorporate the subject matter of previous claims 3, 7 and 9. Claim 11 has the additional limitation of the barrier being a non-wetting region in the flow path and the barrier release means being an agent capable of wetting the liquid flow barrier.

20 WO 96/24060 makes reference to slow release materials which affect the rate of release of reagents as liquid flows through the zone in which the slow release agent is impregnated. Reference to influencing the hydrophobicity of the membrane by surfactants impregnated on the membrane should be considered in this context. There is absolutely no disclosure of a barrier means which prevents fluid flow. Moreover, there is no disclosure of an associated barrier release means. In particular, there is no disclosure that any such barrier release means should be

impregnated in the porous medium. When a barrier is present, the only contemplation of the barrier being made permeable is through contact with the sample fluid.

Similar comments apply to EP 0596867 as discussed with regard to WO 96/24060. The preferred barrier means disclosed in EP 0596867 is PVA which is fluid permeable and which serves to slow down the passage of sample through the device. Reference is made to the possibility of using a material which is made fluid permeable upon contact with a surfactant (column 7, lines 40 to 45). However, there is no disclosure or suggestion that such a surfactant should be impregnated into the porous medium. One of ordinary skill in the art following the teachings of EP 0596867 when seeking to replace the preferred PVA with a non-permeable material which can be made permeable upon contact with a surfactant, would do no more than add the surfactant to the sample fluid.

Applicants respectfully submit that Yang is wholly irrelevant to the present claims. Yang refers to a hydrophobic barrier, but this is clearly intended to be a permanent barrier. There is no disclosure or suggestion that the barrier disclosed in Yang should at any point be made permeable.

Therefore, Applicant submits that claims 1-5, 7-17, 19, 20, 23 and 24 are not anticipated by, nor are they rendered obvious by, WO 96/24060, EP 0596867 or Yang. Reconsideration and allowance of claims 1-5, 7-17, 19, 20, 23 and 24 is requested.

Claims 1-5 and 7-24 were rejected under 35 U.S.C. §102(b) as allegedly being clearly anticipated by WO 930317 or United States Patent No. 4,522,923 to Deutsch et al. Claim 18 was cancelled without prejudice in the Preliminary Amendment. Reconsideration and allowance of the claims is requested.

Claim 1 has been amended to incorporate the subject matter of previous claims 3, 7 and 9.

Claim 11 has the additional limitation of the barrier being a non-wetting region in the flow path and the barrier release means being an agent capable of wetting the liquid flow barrier.

WO 93/03176 manipulates flow by the use of soluble barriers. However, it is the fluid flow itself which dissolves the barrier, and there is therefore, no need for a separate barrier release means. There is therefore no disclosure or suggestion of impregnating the porous medium with barrier release means.

Applicants respectfully submit that Deutsch is wholly irrelevant to claim 1 or claim 11. Water soluble barriers are used to separate chambers which are preferably stacked vertically in a test tube. There is no disclosure or suggestion that the flow path should be defined by interstices of a porous medium and, therefore, no teaching or disclosure that barrier release means should be impregnated into the porous medium.

Therefore, Applicant submits that claims 1-5, 7-17 and 19-24 are not anticipated by, nor are they rendered obvious by, WO 930317 or Deutsch et al. . Reconsideration and allowance of claims 1-5, 7-17 and 19-24 is requested.

In summary, Applicants contend that none of the art cited by the Examiner discloses a barrier release means which is impregnated into the porous medium. Such an arrangement is novel and inventive over the prior art and allows a variety of configurations of the flow control device which would not be achievable without such barrier release means.

Claim Rejections - 35 U.S.C. §102(b)

Claim 6 was rejected under 35 U.S.C. §103 as allegedly being unpatentable over WO 96/24060, EP 0596867, WO 930317, Yang or Deutsch et al. in view of United States Patent No. 5,459,054 to Braek et al. Claim 6 is dependent upon claim 1 which Applicants submit is it.

condition for allowance. Therefore, Applicants submit that claim 6 is allowable.

Reconsideration and allowance of claim 6 is requested.

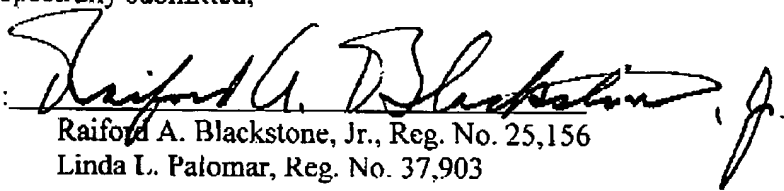
A Petition for a Two-Month Extension of Time is concurrently submitted herewith to extend the date for response up to and including March 3, 2006.

In view of the above Amendments and Remarks, Applicant respectfully submits that the claims of the application are allowable over the rejections of the Examiner. Should the Examiner have any questions regarding this Amendment, the Examiner is invited to contact one of the undersigned attorneys at (312) 704-1890.

Respectfully submitted,

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